

Case 3016***Gladiolites geinitzianus* Barrande, 1850 (currently *Retiolites geinitzianus*; Graptolithina): proposed designation of a neotype**

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Abstract. The purpose of this application is to conserve the Silurian graptolite name *Retiolites geinitzianus* (Barrande, 1850) in its accustomed usage. In 1944 Bouček & Münch designated as lectotype one of Barrande's type specimens, which is too fragmentary to assign with certainty to *Retiolites geinitzianus*. It is proposed that a specimen corresponding with the present usage of *R. geinitzianus* be designated as the neotype.

Keywords. Nomenclature; taxonomy; Graptolithina; Silurian; *Retiolites geinitzianus*.

1. Barrande (1850) established a new graptolite genus *Gladiolites* (p. 68) and described a new species, *Gladiolites Geinitzianus* (p. 69, pl. 4, figs. 16–33). In a footnote on p. 68, he wrote: 'Si l'affinité entre le nom générique *Gladiolites* et *Gladiolus* désignant une plante, pouvait faire élever quelque objection contre le premier, nous proposerions de lui substituer celui de *Retiolites*'. The substitute name *Retiolites* was used by virtually all subsequent authors, and in 1954 the Commission (Opinion 199) suppressed the name *Gladiolites* in order to conserve *Retiolites*, with *Gladiolites geinitzianus* as its type species.

2. Assignment of a specimen to one of the species of *Retiolites* is difficult unless the specimen is complete. The presence of the proximal end is important for identification purposes, particularly since one of the primary means of distinguishing between *Retiolites* species is by measuring the dorso-ventral width at a specified distance from the proximal end (see Berry & Murphy, 1975, pp. 98–99; Bjerreskov, 1975, pp. 38–39).

3. Bouček & Münch (1944, p. 37) designated as lectotype of *Retiolites geinitzianus* the specimen figured by Barrande, 1850, p. 4, figs. 17–19. We have examined this specimen (L27600 in the National Museum, Prague, from the locality Prague-Vyskočilka). It is a short mesial fragment, with a dorso-ventral width more typical of specimens which would now be assigned to *R. angustidens* Elles & Wood, 1908, but is too small a fragment for confident assignment to this or any other species of *Retiolites*.

4. We have examined the remainder of Barrande's collection in the National Museum, Prague. The only other *Retiolites* specimens present are those that were figured by Barrande (1850) as pl. 4, figs. 16, 20–32; the specimen figured in pl. 4, fig. 33 is missing. Of the specimens present, L27602 (fig. 16) and L30063 (figs. 28–32) would now be assigned to *R. angustidens*; L30059 (figs. 20–23) was recognised by Bouček & Münch (1944, p. 45) to be *Stomatograptus grandis* (Suess, 1851); L30062 (figs. 24–25) is an obliquely preserved distal fragment probably, but by no means certainly, of *R. geinitzianus* as currently understood; and L30064 (figs. 26–27) is a poorly preserved fragment in subscalariform view and of uncertain specific identity. Thus Barrande's collection contains no specimen which can be identified unequivocally as *R. geinitzianus* in the sense of current usage.

5. To select L27602 or L30063 as replacement lectotype of *R. geinitzianus* would result in the nominal species *R. angustidens* Elles & Wood, 1908 (p. 338) becoming a junior synonym of *R. geinitzianus*. To select L30059 as replacement lectotype would result in *Stomatograptus grandis* (Suess, 1851, p. 99) becoming a junior synonym of *R. geinitzianus*. Both *R. angustidens* and *Stomatograptus grandis* have been used consistently and internationally, the latter being a biozonal index species in central Europe (see, for example, Bouček, 1953; Storch, 1994). To select L30062 or 30064 as replacement lectotype of *R. geinitzianus* would offer no advantage over the existing lectotype since none of these specimens is sufficiently complete to offer a basis for the differentiation of *R. geinitzianus* from the other species of *Retiolites*.

6. Bouček & Münch (1944, pl. 3, figs. 2–4) figured a specimen of *R. geinitzianus* (L31612 in the National Museum, Prague) from the lower Wenlock of Prague-Vyskočilka, Bohemia, the same locality from which the lectotype selected by Bouček & Münch (see para. 3 above) came.

7. It is desirable that the widely used name *R. geinitzianus* (Barrande, 1850) should continue to be used for this distinctive and widespread species. We therefore propose that specimen L31612, figured by Bouček & Münch (1944) be designated as neotype of *R. geinitzianus*.

8. The International Commission on Zoological Nomenclature is accordingly asked:

- (1) to use its plenary powers to set aside all previous fixations of type specimens for the nominal species *Gladiolites geinitzianus* Barrande, 1850 and to designate as neotype the specimen L31612 in the National Museum, Prague;
- (2) to emend the entry on the Official List of Specific Names in Zoology for the name *geinitzianus* Barrande, 1850, as published in the binomen *Gladiolites geinitzianus*, to record its establishment on p. 69 (not p. 68) and that it is defined by the neotype designated in (1) above.

References

- Barrande, J. 1850. *Graptolites de Bohême*. vi, 74 pp., 4 pls. Author, Prague.
- Berry, W.B.N. & Murphy, M.A. 1975. Silurian and Devonian graptolites of Central Nevada. *University of California Publications in Geological Sciences*, **110**: 1–109.
- Bjerreskov, M. 1975. Llandoveryan and Wenlockian graptolites from Bornholm. *Fossils and Strata*, **8**: 1–94.
- Bouček, B. 1953. Biostratigraphy, development and correlation of the Želkovice and Motol Beds of the Silurian of Bohemia. *Shorník Ústředního Ústavu Geologického*, **20**: 473–484.

- Bouček, B. & Münch, A.** 1944. Retioliti středoevropského Llandovery a spodního Wenlocku. *Rozpravy II. Třídy České Akademie*, **53**: 1–50.
- Elles, G.L. & Wood, E.M.R.** 1908. A monograph of British graptolites, part 7. *Palaeontological Society (Monograph)*, 273–358.
- Štorch, P.** 1994. Graptolite biostratigraphy of the Lower Silurian (Llandovery and Wenlock) of Bohemia. *Geological Journal*, **29**: 137–165.
- Suess, E.** 1851. Ueber böhmische Graptolithen. *Naturwissenschaftliche Abhandlungen*, **4**(4): 87–134.